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Page 269, after the word "longitudinally," line 18, insert, "and in the other it loses strength in the centre whilst it gains strength at the circumference."

Additions to Mr. C. VARLEY'S Paper on the Microscope in Vol. XLVIII.

P. 353, at bottom: It requires a considerable thickness of finely pulverised glass, or a large lump of dried carbonate of soda, to receive the bright focus of the lens; for though that may be small, the light will spread out in all directions, giving a very bland or soft and purely decomposed white light, much larger than is requisite for use. This, from the nature of its production, cannot be prevented; therefore, it is best to use a brilliant metal cup or a bright tin box, only a little larger and deeper than the requisite diameter; then nearly fill it, and slope the surface of the powdered glass towards the light by just shaking it to the off side; this will receive the light in the best manner; then that portion of light that would have spread out beyond the range of the usable diameter, will be reflected back upon the centre by the bright surface of the cup or box, and still farther increase the brightness of that central portion.

In the process for making small lenses, p. 376, I omitted to state, that for the very smallest lenses, such as the sixtieth and one hundredth, I have filled the metal cups with lead instead of hardened bees'-wax, because it stands better to the work and will polish well; but finding for large lenses it was liable to scratch, I changed it for clean shell-lac, which stands well for the very smallest lenses that can be worked, and does not scratch; for, although it is hard enough to stand well, it is so much softer than glass that it allows to small lenses what bees'-wax does to large, namely, to let the polishing stuff sink in rather than scratch. For the very minute tools, I find it convenient to first turn a rather widish hollow in the face, and then in the centre turn the small hollow in which the lenses are to be ground or polished ; the large hollow holds the grinding or polishing stuff well around the work, so as to keep feeding the tool every time the work is withdrawn a little for that purpose, and this withdrawing is very frequently done, and more particularly at first, to effectually pave or charge the tool, by which it acts better on the glass, with but little wear of itself; but if this is neglected, the stuff between soon wears away, and the glass will act on the tool, and sometimes become heated enough to come off the holder.

Instead of holding the *chara* in the vial-microscope, p. 397, in the manner there described, I use straight narrow slips of glass, shorter than the vial's length, and cut small sticks of cork just long enough to fit tight between the slip of glass and the opposite side of the vial. I just wet the vial and hold it horizontally, and then, by means of tweezers, introduce the slip of glass with the sample of *chara* lying on it; this I lift to the upper side of the vial, and carefully turn that side downwards, and then with tweezers introduce the slip of cork so as to hold the slip of glass tight against the vial. It mostly happens that the sides of the vial are taper and a little curved; this allows the cork to be placed straight across, and to be slid up or down till it finds a tight place ; the curvature also allows portions of the *chara* to pass out from between the slip of glass and the vial, without being pinched or hurt. C. VARLEY.